## UNITED STATES OF AMERICA

## NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

CONDATI DEDATIMENTO / HAZADDOHC

CONRAIL DERAILMENT/HAZARDOUS \*
MATERIAL RELEASE \* Docket No.: DCA-13-MR-002

PAULSBORO, NEW JERSEY

\*\*
NOVEMBER 30, 2012

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Interview of: KRISTOPHER KNEIB

Paulsboro, New Jersey

Tuesday,

December 4, 2012

The above-captioned matter convened, pursuant to notice.

BEFORE: TIMOTHY DEPAEPE

Accident Investigator

#### APPEARANCES:

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DAVID KILLINGBECK, Chief Engineer Structures Federal Railroad Administration

THOMAS BILSON, Assistant Chief Engineer Maintenance of Way and Structures Conrail

DOUG TRACY, Assistant Chief Engineer Communications and Signals Conrail

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- 1 INTERVIEW
- MR. DEPAEPE: It is December 4th, 2012. My name is Tim
- 3 DePaepe, D-e-P-a-e-p-e. I'm with the National Transportation
- 4 Safety Board. We're here this morning to interview Mr. Kristopher
- 5 Kneib of Conrail about incidents -- trouble tickets for the
- 6 Paulsboro moveable bridge, and this is related to a bridge
- 7 derailment with hazardous release, and it's -- NTSB number is DCA-
- 8 13-MR-002.
- 9 And I'm going to have everybody in the room here
- 10 introduce themselves and spell their name and state their
- 11 organization. I'm going to start with my right. Go ahead.
- MR. GURA: Cy, C-y, Gura, G-u-r-a, Safety Engineer with
- 13 the NTSB.
- MR. BILSON: Thomas Bilson, T-h-o-m-a-s, B-i-l-s-o-n,
- 15 Assistant Chief Engineer, Maintenance of Way and Signal -- or
- 16 Maintenance of Way and Structures.
- MR. DEPAEPE: For?
- 18 MR. NOON: Conrail.
- 19 MR. BILSON: Conrail.
- 20 MR. NOON: My name is Thomas, T-h-o-m-a-s, Noon, N-o-o-
- 21 n. I'm with the Federal Railroad Administration, Signal and Train
- 22 Control.
- MR. TRACY: Doug Tracy, T-r-a-c-y, Assistant Chief
- 24 Engineer, C&S, Conrail.
- MR. KNEIB: Kristopher Kneib. It's K-r-i-s-t-o-p-h-e-r,

- 1 Kneib is K-n-e-i-b. I am the signal supervisor for South Jersey
- 2 with Conrail.
- 3 MR. KILLINGBECK: David Killingbeck, D-a-v-i-d, K-i-l-l-
- 4 i-n-g-b-e-c-k. I am Chief Engineer Structures for the Federal
- 5 Railroad Administration.
- 6 MR. DEPAEPE: Thank you, gentlemen.
- 7 INTERVIEW OF KRISTOPHER KNEIB
- 8 BY MR. DEPAEPE:
- 9 Q. We're going to start off -- we have some trouble tickets
- 10 related to this accident and we're just trying to find out, Kris,
- 11 what you may know about some of these trouble tickets. I'm going
- 12 to go through them. I've got a copy here that I can let you look
- 13 at.
- MR. DEPAEPE: Can I have another copy?
- BY MR. DEPAEPE:
- 16 Q. You have a copy there? I want to start on the first
- 17 page starting with October 27th, 2012. This particular trouble
- 18 ticket says the bridge failed to open. The repair was cleared,
- 19 error tested, cause unknown. Did you have any involvement with
- 20 this report at all?
- 21 A. Not that I remember.
- 22 Q. Okay. Let's move to page 2. I'm going to use its event
- 23 number. I'm going to go straight to see if you have any
- 24 involvement, and then, if you do, we'll have follow-up questions.
- 25 The 6528 event --

- 1 A. 6-5?
- 2 UNIDENTIFIED SPEAKER: This one.
- 3 MR. KNEIB: Oh, I'm sorry, 6-5.
- 4 BY MR. DEPAEPE:
- 5 Q. It says the bridge will not lock. Did you have any
- 6 involvement with that incident?
- 7 A. Not to my knowledge, no.
- 8 Q. I'm going to ask that you speak up a little bit, Kris.
- 9 A. I'm sorry. Not to my knowledge.
- 10 Q. Okay. 62587 is the next one. Did you have any
- 11 involvement with that?
- 12 A. No, I did not, not initially. Maybe to see if they
- 13 found anything afterwards.
- MR. DEPAEPE Pause it?
- 15 (Off the record.)
- 16 (On the record.)
- 17 MR. DEPAEPE: We went off the record for a moment.
- 18 BY MR. DEPAEPE:
- 19 Q. I want to specifically talk about event 62786, which the
- 20 problem was stated as no signal northbound on November 16th, 2012.
- 21 The repairs state non-operated -- or none and operated and tested;
- 22 cause, COA, nothing found. COA stands for "clear on arrival." It
- 23 states in the notes that Supervisor Kris Kneib and B&B Supervisor
- 24 R. Hill were informed. Can you tell us in your own words, Kris,
- 25 anything you remember about this incident?

- 1 A. I believe, to the best of my knowledge, without knowing
- 2 other incidents coloring my memory, I believe we both had someone
- 3 go out, a maintainer and a B&B member, and that the -- they had to
- 4 manually get the rail locks to drive, and when they got the train
- 5 through, they could not recreate the problem.
- 6 Q. Are you saying that the bridge was failing when they got
- 7 there? Is that what you're describing?
- 8 A. Yes.
- 9 O. And --
- 10 A. That was the reason for no northbound signal.
- 11 Q. And can you describe what's involved to manually drive
- 12 the rail locks, as you stated, to get it back operational?
- 13 A. They take local control and, depending on what sequence
- 14 there was an error on, they could either reset the error and
- 15 manually drive the locks with the local control or they would open
- 16 the bridge back up and try to start the whole process over. I'm
- 17 not sure what process they did at that time with that event.
- 18 Q. Okay, thank you. When the bridge has a problem, if it
- 19 fails to operate, fails to open, fails to close, whatever the
- 20 problem may be, can you describe to me the process as far as
- 21 Conrail uses, how does it get reported, who does it get reported
- 22 to, how do you dispatch people out to repair?
- 23 A. The train crew will report it to the South Jersey train
- 24 dispatcher and the train dispatcher will report it to Conrail's
- 25 trouble desk. The trouble desk will call usually the Signal

- 1 Department first. Depending on what the announcement of the
- 2 failure was or the description of the operation failure, either
- 3 the Signal Department will send a maintainer or we will ask the
- 4 trouble desk to notify B&B so they can get somebody out there. I
- 5 mean, that's the process. Sometimes, both of us send people if he
- 6 can't determine what the issue is by the announcement of the
- 7 failure or the reason why.
- 8 Q. I appreciate that. Thank you.
- 9 Are there ever cases where maintainers aren't available
- 10 and because of the voice announcement it appears it may be signal-
- 11 related, do supervisors have to go out and check the bridge ever?
- 12 I mean --
- 13 A. Yes.
- 14 O. -- or is it just maintainers?
- 15 A. No. Yes, we'd go -- supervisors will go if we can't get
- 16 a maintainer, and on -- that would be on overtime. And then, if
- 17 we're available -- especially with the bridges, we try to make it
- 18 a point to get down to and to have somebody down there if -- to
- 19 see what issues, if we can help out with troubleshooting.
- 20 Q. In your recollection, does that happen often where
- 21 supervisors have to go make repairs or inspections, or --
- 22 A. As far as normal business hours or after hours?
- Q. Either or both.
- A. Well, normal business hours, we try to go down, both the
- 25 B&B and Signal, because we've been having -- we've had issues. So

- 1 it's much easier if we're both there to understand what's going
- 2 on.
- 3 Q. Has this particular bridge been of extra concern to the
- 4 Signal Department? Have there been -- again, it could be an
- 5 estimation on your part. Have there been more problems with it
- 6 since the end of October or less problems or about the same?
- 7 A. There've been more issues recently.
- 8 Q. Have you been able to make any determination why there
- 9 have been more issues?
- 10 A. No, we have not, not from the signal side. We've been
- 11 working for the most part with -- any assistance B&B has needed
- 12 from -- you know, any assistance we could give them.
- Q. As I stated earlier, under the cause, it said COA, clear
- 14 upon -- or clear on arrival. If maintainers are dispatched to
- 15 inspect a bridge or look into a trouble code and it's clear upon
- 16 arrival, are there protocols that they do to check things since
- 17 it's not a hard failure at the time?
- 18 A. Yes. They'll go through the sequence of closing the
- 19 bridge manually and simulate a train move to see if we can
- 20 recreate the problem.
- Q. And when you say close the bridge manually, what do you
- 22 mean?
- 23 A. There is a push button that we can operate the bridge
- 24 for track cars to go across, vehicles that don't shunt, and to
- 25 walk out and inspect the bridge.

- 1 Q. Just so I understand what you're saying, it's some type
- 2 of local control, you might call it, so they can do these tests?
- 3 A. Yes. There's one located on the north side of the
- 4 bridge and the south side of the bridge.
- 5 Q. Okay. Do you think the protocols that Conrail has set
- 6 up at this time are adequate for maintaining the bridge and
- 7 getting personnel out there to do inspection and repairs?
- 8 A. Yes, I do.
- 9 O. Okay. That's all I have at this time.
- MR. DEPAEPE: I'm going to allow everyone at the table,
- 11 if they have any questions for Mr. Kneib -- Mr. Gura?
- MR. GURA: I have just a couple of follow-up. First
- 13 name is Cy, C-y; last name Gura, G-u-r-a.
- 14 BY MR. GURA:
- Q. Kris, could you tell me a little bit about the PLC,
- 16 programmable logic control, and do you have anything to do with
- 17 it?
- 18 A. We do not. The Signal Department does not have anything
- 19 to do with the PLC. That's usually, that's on the B&B side of the
- 20 bridge. The most I know is the basic part is, is -- you know, the
- 21 operation of the bridge is we put the request in and we hand it
- 22 off to the PLC, and that obviously initiates their sequence of
- 23 closing of the bridge. And then when they say everything is done,
- 24 we'll indicate if we agree and we display a signal.
- 25 Q. Okay. What is the delineation of duties between you and

- 1 the B&B? What will you actually take care of over there and what
- 2 does the B&B? Now, you mentioned B&B takes of the PLC. What else
- 3 do they do that you won't do and what do you do that they don't
- 4 do?
- 5 A. Well, we maintain the track circuits and the signal
- 6 governing the north move and the south move, those signals. They
- 7 have their own building there with their PLC and their operating
- 8 system and we have our own. We have a -- you know, obviously, we
- 9 have a radio link from the signal and communication side. And as
- 10 far for the B&B -- and I could miss something, but they take care
- 11 of the motor of the bridge, the ram, the motors that drive the
- 12 slider rails, and the physical structure itself of the bridge.
- 13 And if I missed something, then I didn't know it. I think that
- 14 includes everything.
- 15 Q. Who takes care of the proximity detectors?
- 16 A. The proximity detectors are the Signal Department's
- 17 responsibility for the slider rails, the four of them.
- 18 Q. For the slider rails. How about the -- I'm trying to
- 19 think of the --
- 20 UNIDENTIFIED SPEAKER: Limit switches.
- 21 BY MR. GURA:
- 22 Q. -- limit switches?
- A. The limit switches are the B&B's.
- Q. Okay. And you talked about a local access to operate
- 25 the bridge.

- 1 A. Yes.
- 2 Q. Do the train crews have access to that local access or
- 3 is it locked in a box or something of that nature?
- A. There's two -- there is one box with two compartments on
- 5 it. One button -- there's a single button for if there's a radio
- 6 failure and they cannot close the bridge with the train crew that
- 7 is labeled T&E. They can push this button if for some reason the
- 8 radio is not working and it will close the bridge.
- 9 For maintenance of way and non-T&E people, there is
- 10 another side. We call it the M&W box, maintenance of way.
- 11 There's two buttons in there -- one's close; one's open --
- 12 specifically put in for track inspectors when they're hi-railing
- 13 the rail so they can get across. They would open -- the operation
- 14 would be they would come up, they would open the box, they would
- 15 press close, the bridge will close, the regular functions would go
- 16 and they would get a clear signal. They go across the bridge on
- 17 the other side, open up the other box and hit the open button to
- 18 reopen the bridge.
- 19 Q. Okay. And is that locked with some kind of M&W key that
- 20 the train crews can't get to?
- 21 A. Exactly. There is a switch, a regular 102 lock for the
- 22 T&E button, which is the single one that I mentioned, and the M&W
- 23 with the two buttons has a special lock that only engineering
- 24 personnel would have, no transportation.
- Q. Okay. When you go into the signal recorder and that

- 1 memory that -- could it be shown on the data who operates the
- 2 bridge, then, if it's normal train crew or track crew or signal
- 3 crew?
- A. Well, you can -- I can't tell between the track crew or
- 5 signal crew or B&B crew, but I can tell if it's a train, an actual
- 6 train using it through the radio.
- 7 Q. Uh-huh.
- 8 A. Well, you can -- actually, I've got to correct myself.
- 9 You can simulate a train by, the Signal Department can, by
- 10 dropping track circuits --
- 11 Q. Right.
- 12 A. -- and using a radio. So, no, I guess technically you
- 13 can't, but you can tell if it was used by the Maintenance of Way
- 14 buttons compared -- or the radio, the local buttons.
- 15 Q. There -- it'll show up in the data as a separate data
- 16 entry for Maintenance of Way compared to a train crew?
- 17 A. You could tell when the push buttons rather than a radio
- 18 is used.
- 19 Q. Okay. Okay.
- 20 A. If that makes -- if that clarifies it better.
- 21 Q. Okay. I have no further questions.
- BY MR. BILSON:
- Q. Tom Bilson, Conrail. Do the maintainers sometimes go in
- 24 and clear error codes and -- just to get the bridge going and just
- 25 to move the train?

- 1 A. The only time we have to -- yes, we have. We -- usually
- 2 the process is we'll write down the errors and usually it's just
- 3 to get the train moving if we were there before B&B.
- 4 Q. And then test the bridge afterwards or --
- 5 A. Yeah. And usually at that point, if we have to go in to
- 6 B&B to take local control and move the train --
- 7 Q. Right.
- 8 A. -- usually it's we got there first or --
- 9 Q. And then you just work mutually --
- 10 A. Then we work mutually together to try to see if we can
- 11 -- that's a lot of these -- you know, go through the process to
- 12 try to recreate the problem.
- Q. Right. And then what's the reporting process after
- 14 you're done for an event like this back to the trouble desk?
- 15 A. Depending on whose problem it is, we usually hand it off
- 16 to that department to report it. So if it's a signal issue, we
- 17 call the trouble desk and we say we adjusted a prox detector or we
- 18 had a track circuit down, whatever the event can be. I know with
- 19 B&B, from what I've known, if they find something definitive, it's
- 20 usually in there. If not, I know -- I think Ryan usually -- has
- 21 lately taken care of it, or Dave, before.
- Q. Thanks.
- MR. DEPAEPE: Is that all, Mr. Bilson?
- MR. BILSON: That's it.
- MR. DEPAEPE: Mr. Nook [sic]?

- 1 MR. GURA: Noon.
- 2 MR. NOON: Thomas Noon --
- 3 MR. DEPAEPE: Noon. Sorry.
- 4 MR. NOON: -- T-h-o-m-a-s, Noon, N-o-o-n.
- 5 BY MR. NOON:
- Q. Kris, can you describe the error codes? I mean, what do
- 7 you mean by error code, defines an error code?
- 8 A. Well, it's actually located on the B&B's PLC in their
- 9 bungalow.
- 10 Q. In the little building that's there?
- 11 A. In the -- I guess you would call it about the same -- I
- 12 guess beige color building. They have a display board on their
- 13 local control panel which insights (ph.) their PLC that they're
- 14 referencing and there's error codes that pop up. And then they, I
- 15 quess -- I don't know them off -- exactly what each number means.
- 16 I'm quessing there's a key code like every other unit.
- 17 Q. Right. So it would come up number 2, number 5,
- 18 whatever's on --
- 19 A. Yes.
- 20 O. -- whatever. And there's a book somewhere that would
- 21 tell that error code, what it is?
- 22 A. Yes.
- 23 Q. So that person troubleshooting would go to that book,
- 24 open it up and say, okay, it's a motor problem, or whatever? It
- 25 would direct them --

- 1 A. If that -- whatever the corresponding code is, it --
- 2 Q. It would direct them to it?
- 3 A. -- it points you to the direction of what it was.
- Q. Okay. Do the people who troubleshoot record the error
- 5 codes anywhere? In other words, if the display says it's a motor
- 6 situation -- E5 is a motor problem, and they'd look at it and say,
- 7 okay. So then they go to the motor and they work on that. They
- 8 don't record that, right?
- 9 A. I cannot speak for what B&B does. The Signal Department
- 10 doesn't record the B&B error codes. We write them down to maybe
- 11 hand them to them and I don't know what they do with that further,
- 12 if they have a log or if they -- I'm not sure.
- 13 Q. Now, does that display show proximity detectors out of
- 14 adjustment or not working?
- 15 A. No. No, it does not. When you see a proximity detector
- 16 not working, that would be on the seer (ph.) unit that's located
- 17 in the signal bungalow, which all that is recording is the signal
- 18 system's, you now, position of relays that we have inside the
- 19 bungalow. And a few commands that we receive from the PLC from
- 20 B&B that we put in to help with problems to see if we couldn't
- 21 reproduce if we were getting it from the PLC.
- 22 Q. Okay. So if a maintainer went out there, he could tell
- 23 without looking at their recorder whether the proximity detectors
- 24 were working properly?
- 25 A. Yes.

- Q. Okay. So he doesn't have to deal with B&B equipment?
- 2 A. No, he does not have to deal with the B&B equipment.
- 3 mean, he doesn't even have to look in the recorder if there's
- 4 physical relays there. There's --
- 5 Q. Okay. So he can tell if the relay is up or down. And
- 6 there's a relay for each side of the bridge?
- 7 A. There is a north -- a relay -- proximity detector 1 and
- 8 2 are together, which -- without a plan in front of me -- I
- 9 believe it's the north side of the bridge, and proximity 3 and 4
- 10 are together, which is the south side of the bridge.
- 11 Q. So if he sees one of those relays down --
- 12 A. And each --
- Q. -- he'll know which side to go work on?
- 14 A. Yes.
- 15 Q. Okay. Do the maintainers often find that the slide
- 16 rails haven't deployed?
- 17 A. We've had issues more lately that have been, I think,
- 18 with opening the bridge and we've had, not more often, but we have
- 19 had trouble with them driving, and other times where they've
- 20 driven completely where we've had to adjust our proximity detector
- 21 because they were driven completely and the rail ran and it was
- 22 short.
- 23 Q. If you know, if you remember, if you can recall, when
- 24 the slide rails were not driven, was it an issue where a motor did
- 25 not drive them or they ran into something and bumped up against an

- 1 unaligned rail or something?
- 2 A. I'm not --
- 3 Q. It wouldn't --
- 4 A. -- I'm not aware of it not driving because it ran into
- 5 unaligned rail. It's -- usually it wasn't from --
- 6 Q. Okay. Could be a motor --
- 7 A. From my history with the bridge, it's been aligned, it
- 8 just -- it did not extend.
- 9 Q. A motor problem of some sort or a drive problem?
- 10 A. Something before -- if -- something in the sequence.
- 11 Then again, I don't want to say it's a motor because I'm not sure.
- 12 Q. Okay. But it didn't drive and couldn't make it because
- 13 it didn't fit? It didn't drive?
- 14 A. It wasn't that it was obstructed, no. We've had any
- 15 problems where it wasn't that the bridge was aligned to extend the
- 16 slider rails, to my knowledge. I have not heard that one.
- 17 Q. Okay. That's all. Thank you.
- 18 MR. TRACY: I'm good.
- MR. DEPAEPE: Mr. Tracy, nothing?
- 20 BY MR. KILLINGBECK:
- Q. David Killingbeck with the FRA. A couple of questions.
- 22 This trouble desk log shows a cleared time and this trouble -- or
- 23 event number 52786 that you were asked about earlier shows a
- 24 cleared time of 12 a.m. on November 17th with the actual event
- 25 shown as 2315 hours on the 16th. Is 12 a.m. midnight or is that

- 1 12 noon the next day?
- 2 A. I cannot answer that. I'm not 100 percent sure.
- 3 Q. I'm just curious as to the people that were
- 4 dispatched --
- 5 A. I don't -- this is -- this comes from -- I believe, from
- 6 my knowledge, it was 12 a.m. midnight. It would have been 11/17
- 7 at midnight. So about 45 minutes later, but I am not 100 percent
- 8 sure. I don't have anything to do with the trouble desk logs.
- 9 Q. Okay. To build on a question that I believe Cy asked
- 10 concerning what the event recorder within the signal bungalow or
- 11 cabinet, whatever it happens to be. Will that log display -- or
- 12 can you ascertain from that log whether the request to close the
- 13 bridge initiated from the DTMF over the radio as opposed to the
- 14 train and engine control box on the ground?
- 15 A. Yes.
- Q. Okay. So you can pick out three different sources that
- 17 requested the bridge to close?
- 18 A. Yes.
- 19 Q. Okay. One last question, and I don't know if Tim asked
- 20 it or not, but how long have you been a supervisor with
- 21 responsibility for this bridge?
- 22 A. I became Supervisor of South Jersey in January of
- 23 2009 --
- Q. Thank you.
- 25 A. -- to present.

- 1 Q. I have no further questions.
- 2 BY MR. DEPAEPE:
- 3 Q. All right, this is Tim DePaepe again with the NTSB. We
- 4 talked about proximity detectors. You explained that there's one
- 5 for each rail. There's two on the north side and two on the south
- 6 side. Have you had issues with the proximity detectors
- 7 themselves? Are they robust? Do they fail often without cause?
- 8 I mean, have you had to repair them or do they have to be replaced
- 9 every year or 6 months, 5 years, or do you just replace them when
- 10 they go into a hard failure?
- 11 A. We replace them as needed. I don't want to tell you an
- 12 exact time frame. It's not an often event, but I can't tell you a
- 13 defined time. I know we've changed all four of them out at least
- 14 once in the last 2 to 3 years just because of newer styles to put
- 15 in with the newer cable.
- 16 Q. Thank you. I have no additional questions.
- 17 MR. DEPAEPE: I'm going to go around the table one more
- 18 time. Mr. Gura?
- 19 BY MR. GURA:
- 20 O. I have two more questions. Last name Gura, G-u-r-a.
- 21 Kris, do you participate in the quarterly bridge
- 22 inspection?
- A. Myself exactly? No, I do not. The section maintainer
- 24 will participate with the B&B maintenance department, but I
- 25 normally don't participate in the quarterly, though I am usually

- 1 there yearly with the -- from the signal aspect side, I'm there
- 2 every year with the FRA testing it.
- 3 Q. Okay. And the other question, do you ever clear error
- 4 codes yourself before the B&B gets there or is the clearing the
- 5 error codes before you try to operate the bridge, you have to wait
- 6 for the B&B to come there to clear the error codes?
- 7 A. If we're trying to move a train, we will clear the error
- 8 codes so we can get local and do something. But from the signal
- 9 side, our policy is just to jot them down to hand them off that
- 10 this is what we had when we got here, just to move the train.
- 11 Q. Okay. That's all I have.
- MR. DEPAEPE: Mr. Bilson, do you have any additional
- 13 questions?
- MR. BILSON: No. I think I'm good. Thanks.
- MR. DEPAEPE: Mr. Noon?
- 16 BY MR. NOON:
- 17 Q. Thomas Noon, N-o-o-n. Kris, can you describe exactly
- 18 what the proximity switches do as far as it indicates fully locked
- 19 or unlocked or, you know, describe -- there's one on each --
- 20 A. Yes.
- 21 Q. -- on each rail, correct?
- 22 A. We -- the proximity detectors indicate that the slider
- 23 rails have driven, and once they are adjusted, the proximity
- 24 switch with -- if the slider rails are 1 inch away, you will not
- 25 get a signal. We just indicate that they are driven.

- 1 Q. So if they were driven short by 1 inch, it would not
- 2 indicate?
- 3 A. It will not give you a signal.
- 4 Q. All right. It indicates fully driven?
- 5 A. Yes.
- 6 Q. That's all.
- 7 MR. DEPAEPE: Mr. Tracy?
- 8 BY MR. TRACY:
- 9 Q. Yes, I do have one question. In reference to the prox
- 10 switches, do they indicate anything other than fully driven?
- 11 A. No, they do not.
- MR. GURA: I have one more.
- MR. DEPAEPE: Okay. Mr. Killingbeck?
- BY MR. KILLINGBECK:
- 15 Q. This is Dave Killingbeck again. The function of these
- 16 proximity switches, are they by design -- can they only fail safe
- 17 or can they, in essence, provide a false clear?
- 18 A. Well, they can fail to indicate that they are up, but
- 19 through the signal system circuitry, it -- you have to have -- it
- 20 has to pick and drop. So, by that, meaning was if it indicates
- 21 that there's a rail there and the other ones are all indicating
- 22 there is no rail there, you will have to have -- send someone out.
- 23 You will not get a signal. It's designed through the circuit
- 24 plans to prevent that.
- 25 Q. All right. So, if I follow what you're saying, if a

- 1 piece of scrap steel or something were to be placed or lodged or
- 2 become resting against the proximity switch, in the operation of
- 3 the signal system it would not take that as a valid indication
- 4 that the slide rail was in place?
- 5 A. You would need all four of them to indicate that there's
- 6 something against them -- or the slide rail was driven, for you to
- 7 get a clear signal.
- Q. Okay. Hypothetically, if someone were to place a piece
- 9 of -- does it have to be steel, ferrous metal, magnetic material?
- 10 A. To the best of my knowledge, yes.
- 11 Q. If somebody were to place a piece of steel against all
- 12 four proximity switches, would those proximity switches indicate
- 13 rails in place or is there a threshold that there has to be a
- 14 certain -- that the steel has to fall in a certain gap? There's
- 15 got to be clearance between the switch and the steel, but it's got
- 16 to be closer than a certain distance? This may be a question that
- 17 you can't answer.
- 18 A. I'm not a -- I'm going to go with I'm not 100 percent
- 19 sure of what you're asking.
- 20 Q. All right.
- 21 A. I'm a little confused.
- 22 UNIDENTIFIED SPEAKER: Are you speaking about an air
- 23 gap?
- MR. KILLINGBECK: I -- yes. I'm asking if there -- the
- 25 function of the proximity switch requires an air gap between the

- 1 face of the, the sensing face of the switch and the --
- 2 MR. KNEIB: I can --
- 3 MR. KILLINGBECK: -- and the material to be sensed.
- 4 MR. KNEIB: I can answer -- actually, the proximity
- 5 switches that we use at the bridge have sensing -- they're
- 6 shielded so nothing will sense from the side and they have a 15-
- 7 millimeter threshold from the front of that out, which is about
- 8 five-eighths of an inch, to give you a rough estimate.
- 9 BY MR. KILLINGBECK:
- 10 Q. Okay. So the ferrous material has to be at least 15-
- 11 millimeters away from the face?
- 12 A. It would not sense it.
- 13 Q. Oh, okay.
- 14 A. It has to be closer, closer to --
- 15 Q. It's got to be closer than 15? Is there a bottom
- 16 threshold?
- 17 A. I'm not sure. I do know that --
- 18 MR. DEPAEPE: There's a plus or minus -- this is Tim
- 19 DePaepe. There's a plus or minus variance of 10 percent so,
- 20 theoretically, it would sense up to 16.5 millimeters and down to
- 21 13.5 millimeters.
- 22 MR. KILLINGBECK: Okay, but will it sense something at
- 23 zero millimeters? And Kris has said he doesn't know, so that
- 24 would have to come from review of the technical specs. That's all
- 25 I have.

- 1 MR. DEPAEPE: All right. Tim DePaepe, NTSB.
- BY MR. DEPAEPE:
- 3 Q. I'm going to use the discretion of the interviewer here
- 4 and do one final question, Kris. Do you have any knowledge or
- 5 information about conditions that may have existed on the date of
- 6 the accident on November 30th pertaining to the moveable point
- 7 bridge and any information relating to it?
- 8 A. Not that I'm aware of, no.
- 9 Q. Okay. Have you had an opportunity to look at any of the
- 10 signal data downloads from that day?
- 11 A. I have briefly looked at them, yes.
- 12 Q. Okay. One thing upon examination of those downloads
- 13 were they showed that when the accident train arrived that the
- 14 proximity detectors for both the north and south end were in the
- 15 down position; is that correct?
- 16 A. That is correct.
- 17 Q. The way the signal circuit is designed, if those two
- 18 relays or any one of those two relays are in the down position, is
- 19 it possible to clear a signal?
- 20 A. No, it is not.
- Q. Okay. So with either one or both of them down, the
- 22 signal would be red or displaying red if everything was working as
- 23 designed and intended?
- A. With those relays down, yes.
- 25 Q. Yeah. Okay. And that's the proper design of the

- 1 system? You want that signal to display red with either of those
- 2 relays down?
- 3 A. Yes. Yes, that is the design.
- 4 Q. All right. Well, thank you very much, Kris.
- 5 MR. DEPAEPE: I'm going to allow Cy Gura to ask one
- 6 additional question.
- 7 Go ahead, Cy.
- 8 BY MR. GURA:
- 9 Q. I just want to get a little view of the area. Is this a
- 10 high vandalism area or is there any -- do you have experience with
- 11 vandalism in that area?
- 12 A. None to my knowledge.
- 13 Q. Okay. That was it.
- MR. DEPAEPE: All right, it's currently 10:45 a.m. and
- 15 I'm going to close this interview.
- 16 Thank you very much.
- 17 (Whereupon, at 10:45 a.m., the interview was concluded.)
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### CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: CONRAIL DERAILMENT/HAZARDOUS

MATERIAL RELEASE

PAULSBORO, NEW JERSEY NOVEMBER 30, 2012

Interview of Kristopher Kneib

DOCKET NUMBER: DCA-13-MR-002

PLACE: Paulsboro, New Jersey

DATE: December 4, 2012

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

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Karen M. Galvez Transcriber